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DSSD CENSUS 2000 PROCEDURES AND OPERATIONS MEMORANDUM SERIES #MM-3

MEMORANDUM FOR Michael Longini
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Subject: Observation Trip to the National Processing Center in
Jeffersonville, Indiana March 20 - 21.

Introduction

The start of my visit to the National Processing Center (NPC) consisted of a general tour. Our tour involved observing the various processes involved in returned Census 2000 questionnaires as well as observing other operations related to the census. In addition to the tour, I participated in the sampling of advance letters returned to NPC, marked as Undeliverable as Addressed (UAA) by the United States Postal Service (USPS). Most importantly, due to my involvement in conducting an evaluation of the Census 2000 questionnaires returned as UAA, I verified that the sampling of these forms was being done correctly.

NPC Tour

Our NPC tour started with a tour of the sampling print area. This is where samples of the printed Census 2000 forms are sent from the vendors for quality assurance checks. We saw various measures for checking these forms such as color shade, bar coding, etc. These measurements had to be within the tolerances specified by the contract requirements. If certain defects were found in the forms that were not detrimental to the scanning of the forms, the government was given a discount for that batch of forms. Else, the batch was rejected.

After our observation of the print sampling area, we proceeded to the DCC portion of the tour. At the time of our visit the DCC was in full swing of checking in returned Census 2000 questionnaires and processing them. Our first stop in the DCC was the sorter check-in of the forms. There were many pallets of returned forms ready for check in. Also, I noticed that there

were many pallets of questionnaires that were marked as UAA by the USPS. After talking with a supervisor, I found out that the returned forms not marked as UAA were a priority for being checked in over the forms marked as UAA. Thus, the UAAs would have to sit on the pallets until there was a lull in the workload for non-UAA forms. In addition to UAAs not being checked in, the returned D2-UL long forms were not being checked in as well. Some of the D2-UL forms that were coming in were printed incorrectly which made it impossible to data capture information on these forms with the scanners. So, those forms were going to have to sit until a software patch was provided to compensate for the printing error. Forms for which the bar codes were not able to be read from the scanners were scanned by hand or keyed in by clerks.

After our observation of check-in, we proceeded to the document preparation of the forms to ready them for the scanners. Forms were taken out of the envelopes, creases were massaged to flatten out the forms, and staples were removed. Forms were then moved to the scanner section of the DCC to be scanned. It appeared that the process of scanning was one of the slowest processes in the DCC.

After the scanning, we proceeded to the Key From Image operation, but in doing so we visited other operations not related to the Decennial Census such as the printing of surveys related to the Economics Division. Basically, these surveys are targeted toward businesses. We also saw machines used in the 1990 Census to transfer census forms on to micro fiche. Finally, we got to observe the Key From Image operation. Basically, a clerk would review images scanned from the forms for which the computer was not able to interpret at a high confidence rate. If there was an error in the interpretation, the clerk made the correction. From my limited observation, it appeared that most of the time the computer was correct in its' interpretation of the scanned images and the clerk did not need to make any corrections.

Next, we visited their CATI (Computer Assisted Telephone Interviewing) operation. My main interest was the Telephone Questionnaire Assistance (TQA) operation. Unfortunately, our tour of this operation was very brief. We talked with the branch chief for a few minutes. One interesting fact that she told us was that the operators started taking Reverse CATI interviews from day one of the TQA operation. Having read the program specifications for the TQA instrument, this was not suppose to occur until after March 22. The operators had found a pathway in the TQA instrument/browser which allowed them to take responses for a short form interview. The manager told us that approximately 100 seats were being used for the TQA operation. She stated that the call center was receiving approximately 5000 calls a day. After talking with the manager, I observed some of the operators working. Limited to a one sided conversation, it appeared that the TQA instrument or browser was working well for the operators. Although, I did hear them answer questions without the use of the instrument/browser. If the operator is not reading the answers off the TQA instrument/browser, there is potential for the operator to give an incorrect answer to a respondent's question.

The CATI operation offers employees very flexible work schedules. Our tour guide showed us examples of the government's use of disabled workers in the CATI environment. We saw a voice recognition instrument for an employee who could not use their hands. The operator used voice commands to control the CATI instrument. Besides the TQA operation there were many other CATI operations going on. For example a consumer survey, which our tour guide said could be quite involved for the participant.

Undeliverable as Addressed Advance Letters

As part of my observation trip, I was able to participate in the sampling of UAA Advance Letters. Basically, the operation consisted of clerks first reviewing the postal trays containing UAAs to identify and remove any non-UAA returned mail. The postal trays of UAA advance letters were then placed on bins which were rolled over to a sampling area. In the sampling area two letters were randomly pulled from the trays and placed in the sample. The census identifications on the sampled letters were to be keyed in at a later date to produce a data file for analysis. The remaining letters were placed on a cart and then reviewed once more for non-UAA returned mail and then placed in large boxes to be sent off and destroyed. The vast majority of UAA advance letters were marked as "vacant" and "no such address". A few were returned with notations about objections to the census and government in general.

Undeliverable as Addressed Census 2000 Questionnaires

My main motive for going to NPC was to observe the check in and sampling of UAA Census 2000 questionnaires. Unfortunately, checking in UAAs was a low priority at the time of my visit because of the large flow of returned Census 2000 questionnaires coming into NPC. However, I saw bins of UAAs that had been checked in through the sorters previous to my visit.

The manager overseeing the UAA Sampling operation, arranged for a few of her workers to sample some of the UAAs while I was visiting. After they were done sampling, I talked with the workers to see if there were any problems. From what I gathered from our conversation, they conducted their sampling according to specifications. They completed the sampling of a single bin. The bin contained approximately nine trays of short form questionnaires. The workers kept tallies of how many forms were sampled from each tub. Approximately, eleven forms were sampled from each tray which agreed with the specified sampling rate.

Conclusion

Overall, I found my visit to NPC to be quite educational. I was able to see firsthand many of the processes involved in processing a returned Census 2000 questionnaire as well as other Census 2000 related activities. In addition, participating in the sampling of the advance letter allowed me to see some of the many different types of UAAs. Most importantly, I was able to verify that the sampling of Census 2000 questionnaires, returned as UAA, was being done correctly.

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